

**What Is Claimed Is:**

1. A measuring apparatus for measuring the genetic sequence of electrically charged biopolymers by means of hybridization, comprising:

a container that contains a biopolymer and can be removed from said measuring apparatus; and

electrodes that apply an electric field to said container and are electrically insulated therefrom.

2. The measuring apparatus of claim 1, further comprising means for altering the direction of an electric field so that wrongly hybridized segment pairs are separated.

3. The measuring apparatus of claim 1 or 2, wherein said container is made of a film.

4. The measuring apparatus of claim 1, 2 or 3, wherein said electrodes are provided with protrusions formed at spatial positions corresponding to sites where a plurality of types of biopolymeric molecules within said container gather.

5. The measuring apparatus of claim 1, 2, 3 or 4, wherein conductive members are formed at spatial positions corresponding to said sites where said biopolymeric molecules within said container gather.

6. The measuring apparatus of claim 1, 2, 3, 4 or 5, wherein said electrodes are in mechanical contact with said container.

7. The measuring apparatus of claim 1, 2 or 3, wherein said electrodes are transparent electrodes.

8. The measuring apparatus of claim 7, wherein said electrodes are made of an ITO film.

9. The measuring apparatus of claim 1, 2, 3, 4, 5, 6, 7 or 8, wherein said biopolymeric molecules are RNA, PNA (peptide nucleic acid), or electrically charged protein molecules.